There's a storm coming

I can see it in her eyes
I can hear it in the way she says "everything's all right"

The teams of human plus machine dominated even the strongest computers

Garry Kasparov

I'm in London. I was invited to a UBS Conference to meet investors and participate in the opening panel discussion on the global macro outlook. On the panel was Jerome Teiletche from Unigestion and Dr Sanjiv Kumar from Fort. Jerome runs a combination of systematic and discretionary macro, and Sanjiv is totally systematic. I very much found it an interesting and wide ranging discussion. I can at times be a little disparaging of systematic funds. I have known quite a few systematic portfolio managers. They believe 100% in their models and their process, and that faith is frequently rewarded. But when the world changes, be it an exogenous event, structural break or even a simple recession, they often scratch their heads and are at a loss to know why their models are no longer working. However Sanjiv appeared to be the one on top of this. He started his fund in 1993, and talked of how his funds have evolved over that time. He noted when he started most of his alpha came from trend following funds, and not much from "mean reverting", meaning the market overshooting and then returning to its trend/range. Now most of their alpha comes from the latter. What was clear listening to Sanjiv, was that although he described himself as systematic, he had a long term fundamental understanding of markets and their evolution. It seemed he exercised discretion to adapt. Jerome who described himself as systematic and discretionary, was in fact not very different to myself. And that reminded me of a great book I read a few years ago, "The Second Machine Age". Written by Eric Brynjolfsson and Andrew McAfee from MIT, their second book chronologs how quickly technology is changing the world, and posits what the world might look like in the future. Most fear that technology will replace most jobs. But the analogue and prediction I found most interesting was that man and machine will do better than machine alone.

The alarm bell for machines replacing man was arguably first sounded in 1997, when Garry Kasparov, world chess master, was defeated by IBM's Big Blue computer.

But subsequently Kasparov could beat Big Blue, or indeed any follower, with the assistance of a computer and even the most rudimentary chess game. Kasparov explains when discussing the results of a 2005 freestyle contest.

> *The teams of human plus machine dominated even the strongest computers. The chess machine Hydra, which was a chess specific computer like Deep Blue, was no match for a strong human player using a relatively weak laptop…weak human + machine + better process was superior to a strong computer alone and, more remarkably, superior to a strong human + machine + inferior process.*[1]

And so as I chatted after with Jerome, I acknowledged that there is an awful lot of systematic work in my own process. There has to be in today's world, where information is so plentiful and absorbed so quickly. And so daily our programs systematically review:

1. Trend and momentum in markets
2. Over 80 indicators of global risk
3. Whether volatility is cheap or expensive across the globe, and the largest volatility "skews" to take advantage of.
4. What factors are the key drivers of all currencies, via historical correlation and regression analysis
5. Whether global economic data is beating or missing consensus forecasts, via our surprise indices
6. Whether the global economy is mapping our forecasts via our nowcasting indices
7. And how our financial condition indices are evolving

I could go on! But the point is we systematise a lot of our inputs to give us an instant read on how economies are tracking and are projected to track, value in markets, timing of execution from market signals, and the best way to express themes in option markets.

And then we use discretion.

Because that is where the creativity comes in.

There are so many macro events that can't be modelled. Trump, any day of the week. Brexit. A left and right wing party joining in Italy. A central bank suddenly swinging hawkish or dovish. One needs to brainstorm, probability weight and identify catalysts. The systematic analysis takes the pulse of the globe and identifies the best way to structure the portfolio. But then we use discretion to tick the box, or indeed think outside the box.

So as you can see, I am a fan of man and computer. During the panel we debated analogues, which I also find very informative. Because it is only looking at dramatic changes in history and analysing both the factors and catalysts involved, that one can think creatively to determine if we might be on the cusp of one such change.

And so one question on the panel discussion was; "Are we about to repeat 1994?" The largest annual negative return in bonds in modern time.

The short answer is possibly. But it is more complicated than 1994. For an analogue, I think one has to look to 1994, 1998, and 1968!

Let me explain.

I have talked about 1994 before. Let's first understand what happened. The backdrop:

a) The Fed funds rate was 3%, and had been there for about 18 months, following a 3 year decline from 9.75%. Rates were never going to rise, and the way to make money for the prior 3 years was simple. Long interest rates (buying bonds) anywhere. The higher the rate, the better. Sound familiar?

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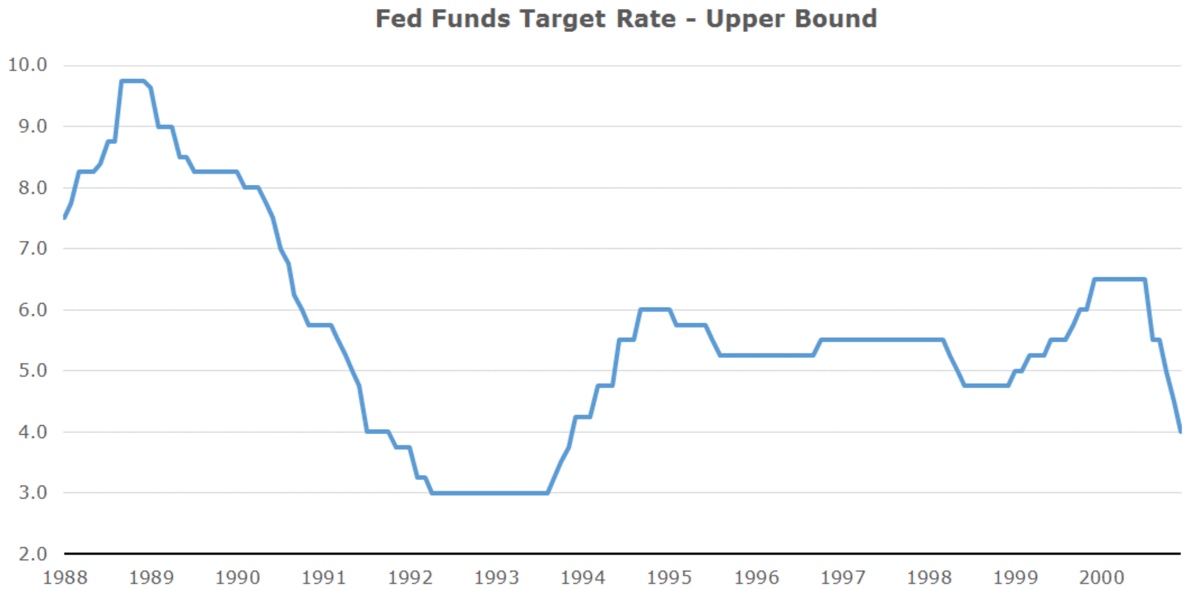
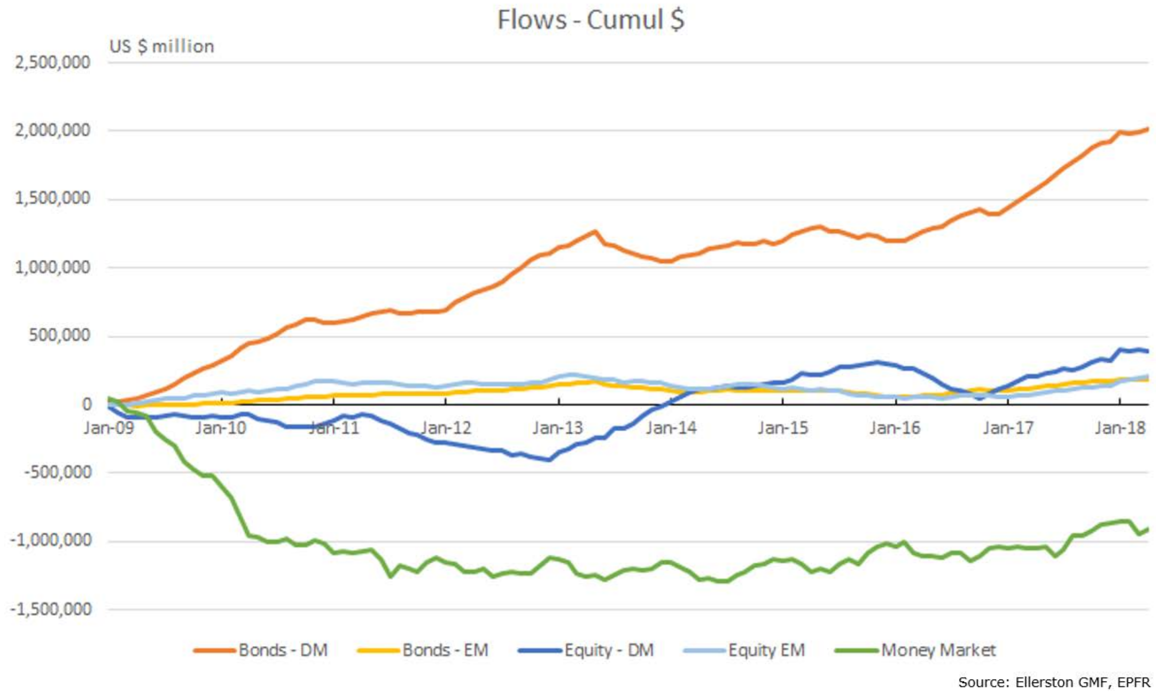
[1] Garry Kasparov, "The Chess Master and the Computer"



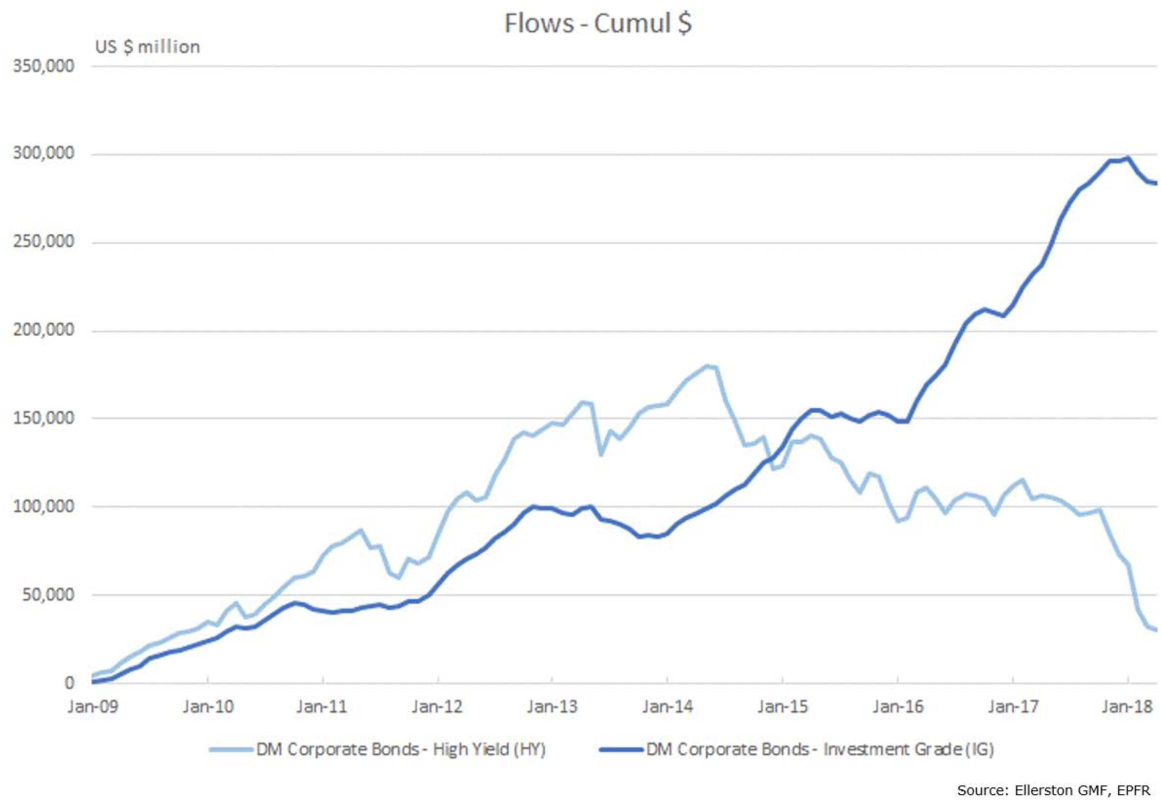
b) When the Fed started hiking in 1994, carry/long rates was obliterated. Nowhere was the reversal more ferocious than European peripheral bonds – the carry of choice back then. It was nothing to do with fundamentals – the central bank there never hiked. Simply the bursting of a "carry" bubble.

After a tech bubble and a housing bubble, it astounds me that many don't recognise we are in the midst of the next central bank engineered bubble, the global bond (carry) bubble.

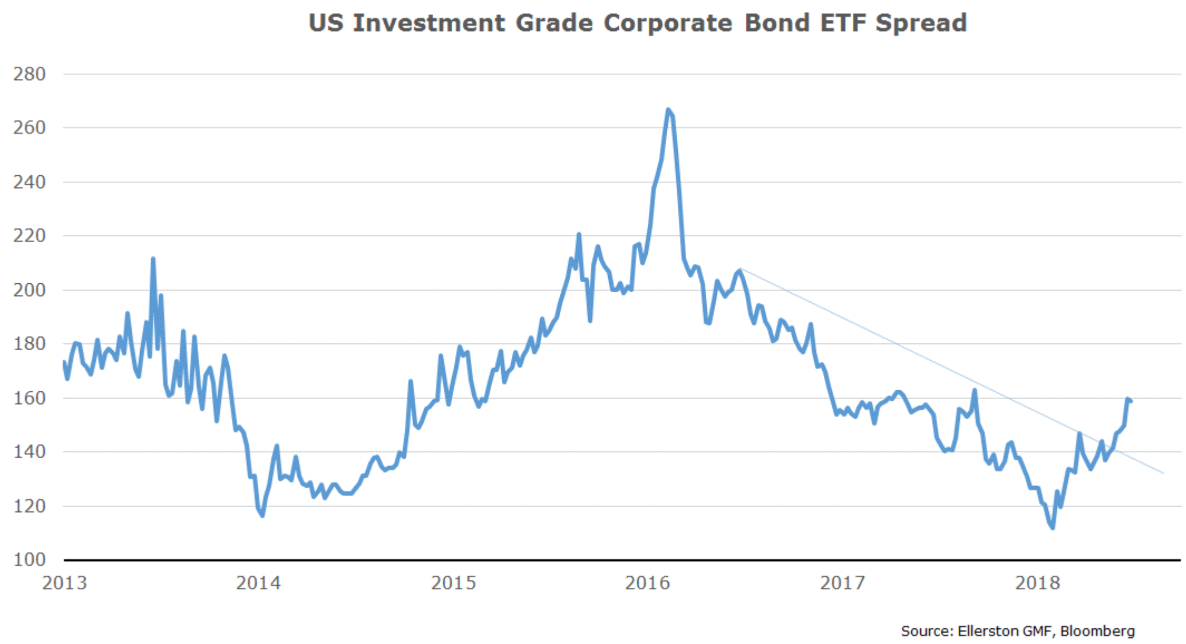
So when this bubble bursts, what will it look like? Well first, where is it? After 10 years of quantitative easing and zero to negative interest rates, where have investors gone to find yield? Where do you think? Well it has been out of money market funds and into bond funds to start.



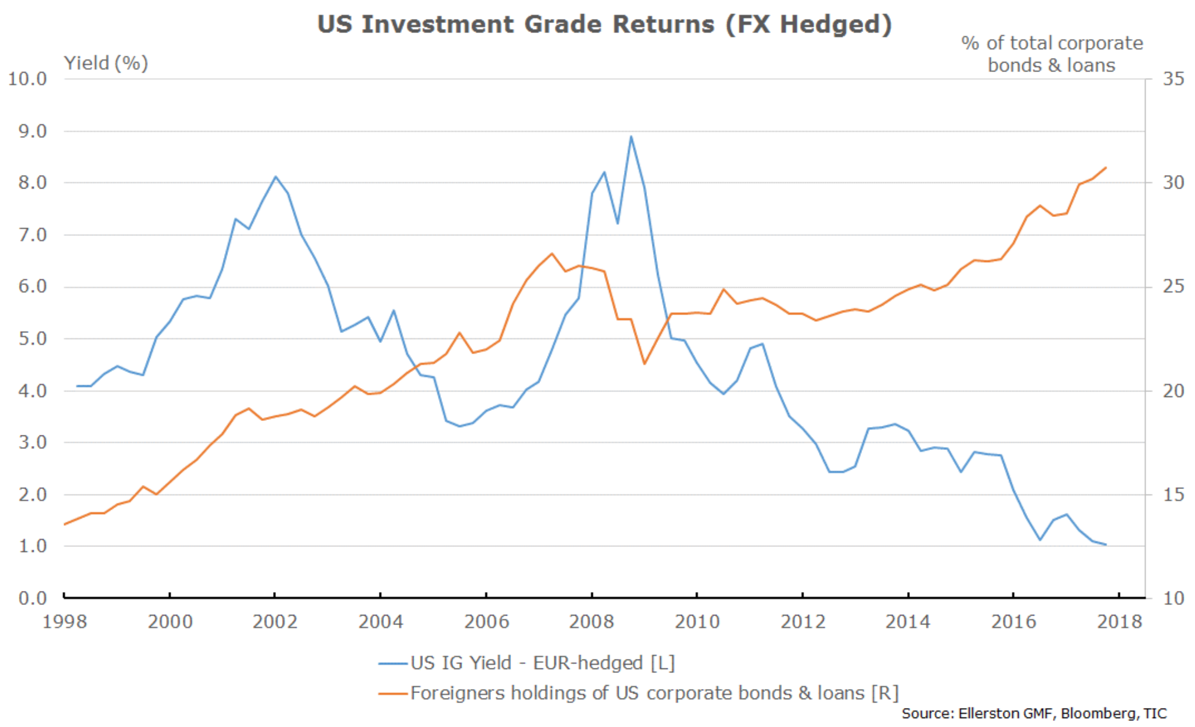
Overwhelmingly the money has flowed into "investment grade" credit (IG) in the US. Corporate debt. But not "high yield". Money has been flowing out of that sector since the energy crisis in 2015.



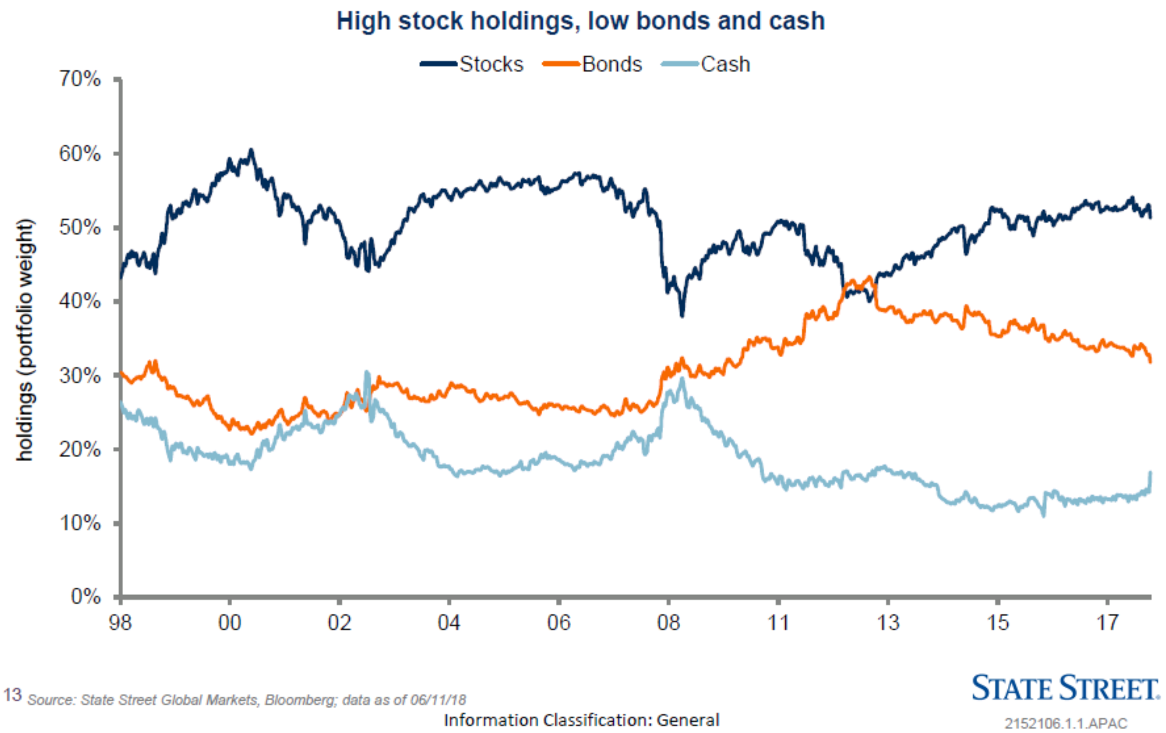
Well that's fine right? There has not been an investment grade credit default in the US in the last two years, and there is unlikely to be one this year either. "Fundamentally", a spread of 150 points over Treasuries is ample reward for the risk of default in this space with a strong US economy.



Except the biggest holders of IG are foreigners. Who like to hedge their FX exposure. And the cost of hedging that exposure was zero in 2014, when foreigners started investing in droves in US IG. Note, as the Fed raises the cash rate to 2%, that cost has built to 2.5% a year. And it is building every 3 months as the Fed continues to hike. Have we reached the tipping point, where foreign investors flee? Is that what the trend break above is telling us? Perhaps.



Of course, as yields rise, other investors, particularly US investors who don't face hedging costs, may well rotate into IG. After all, they rotated out as the foreigners came in.



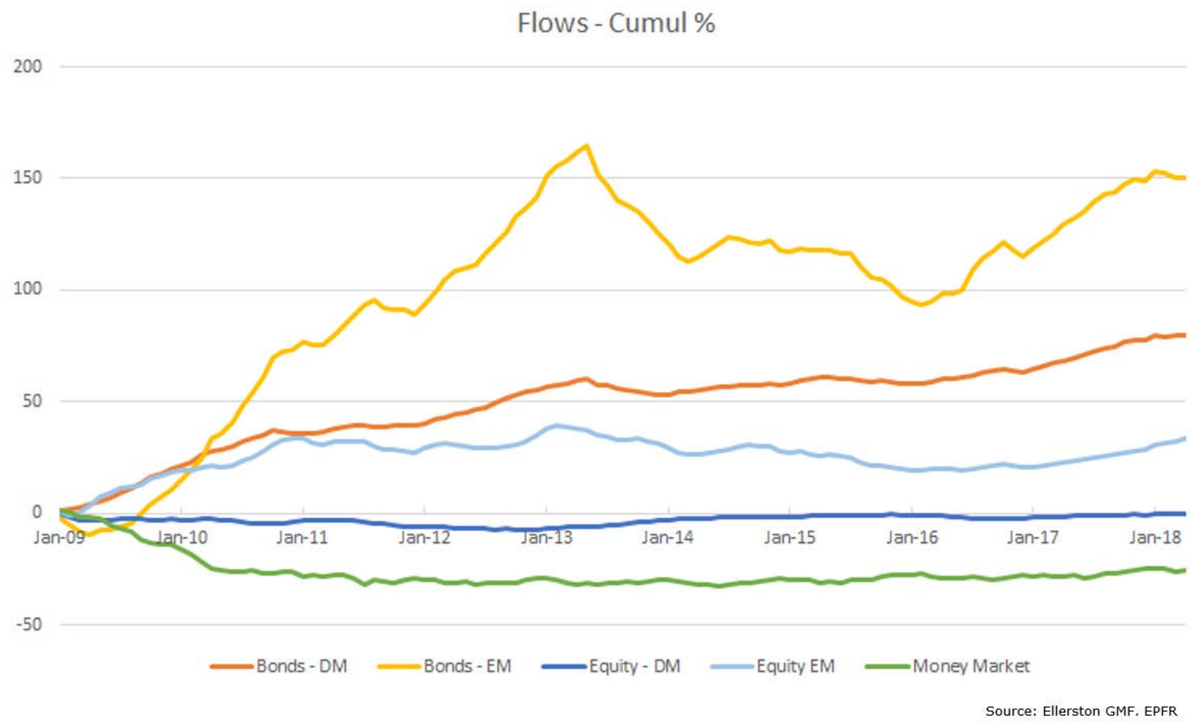
And IG is a very big market in the US. So they may well be an orderly passing of ownership from foreigners to domestics. At a price domestics find attractive…

Nonetheless, for a true bubble to burst, we need two factors:

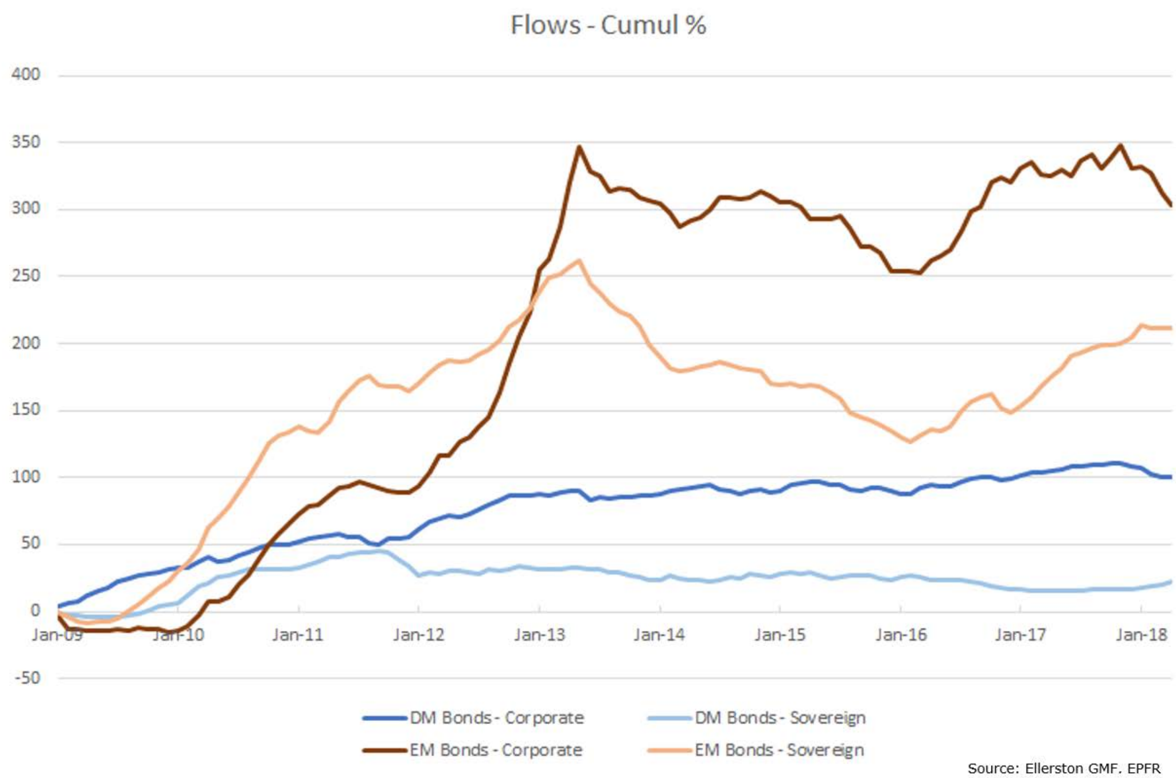
a) A fundamental change
b) A lack of liquidity

The two are not unrelated. As the fundamental picture reverses, liquidity dries up. But poor liquidity will dramatically exacerbate a minor fundamental tweak. Whereas good liquidity won't prevent a bubble bursting when the fundamentals change.

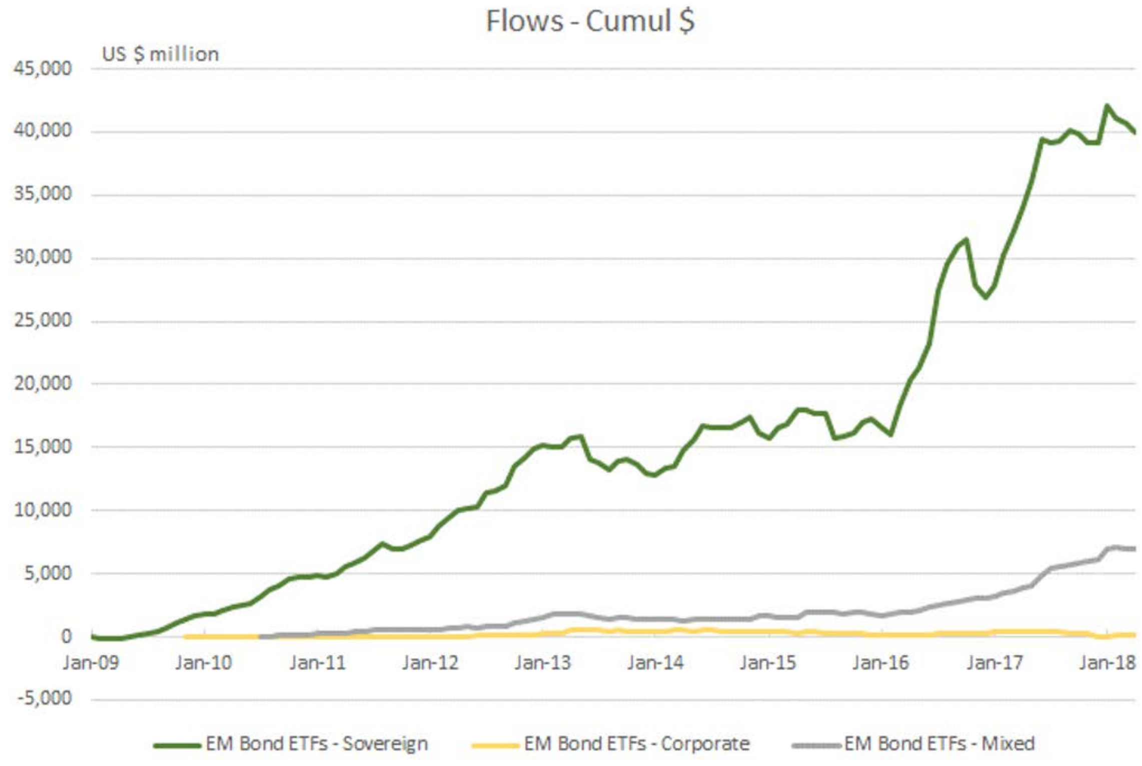
So which bubbles are most vulnerable from a liquidity perspective? To answer that, we calculated how much money has gone into each sector relative to its size in 2009. This gives us an idea of how much money has been driven into these markets by QE/zero rates, and hence the potential for a reversal of those flows. The EM markets are very vulnerable…



Think 3, 2, 1. A 300% increase to EM corporate bonds. A 200 % increase to EM sovereign bonds. And a 100% increase to US investment grade bonds. That’s the ranking for QE reversal.



How has so much money made its way into this space? ETFs, or exchange traded funds. A decade ago, it wasn’t very easy for an investor to own a collection of emerging market bonds. They would have to buy them in each country, and manage the FX risk. Wouldn’t it be great if someone could package this up and do that for you? With all investors in search of yield, enter the ETF. Voila! You want yield? Get the best in the world via our ETF! Boom!



Source: Ellerston GMF. EPFR

Is this a problem? ETF providers will tell you absolutely not! They will point to the sell-off in high yield credit in 2015, and argue that rather than being a liquidity concern, ETFs provided liquidity. Indeed, the 2015 example supports that argument.

How so? Well first you need to understand the mechanics of an ETF. Imagine you want a diversified portfolio of "high yield" (HY) bonds. There are some 28,000 high yield bonds available, with about 1,000 trading somewhat regularly. The HYG ETF holds 1,003 bonds. If you buy this index, you buy 1,003 high yield bonds. When you buy that ETF, say for $100,000, the ETF manager literally goes into the market and buys $100,000 worth of bonds across 1003 names. Oh, unless someone else sells the ETF for $100,000. Then the manager does not have to do anything. The buy and sell nets out. This happened a lot in 2015. So the ETF providers argue that they provided liquidity. By matching buyers and sellers of the 1,003 holding of HY bonds, it was much more efficient to transact in the market. And so it was.

But what happens if everyone wants to sell? Then the manager actually has to go into the market and sell 1,003 bonds. The liquid bonds turn over about 0.25% of their issue size each day. Heaven forbid if you wanted to sell 5% of an issue. HY ETFs argue they are only 14.2% of the retail market[2]. But if everyone is selling their ETF, won't the other holders be selling too?

The bottom line is the ETFs allow easy access to an illiquid market. This is fine until it isn't. God forbid someone yells fire. Or Fed.

Because as the Fed continues to hike, the reason for being in these EM ETFs is crumbling. Investors are eyeing the exit…

Oh the folly! Fear and greed, fear and greed, an endless cycle in financial markets. And so get ready for fear.
So how does it play out? A bubble bursting is notoriously difficult to predict. There can be many head fakes. Is the EM bubble bursting now? Flows and charts would suggest so.

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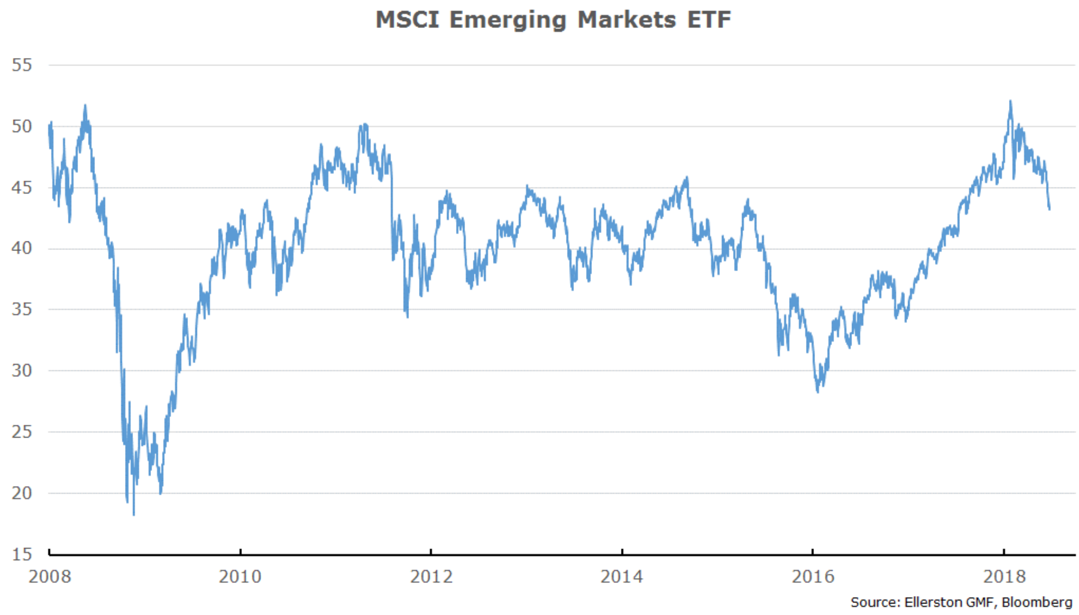
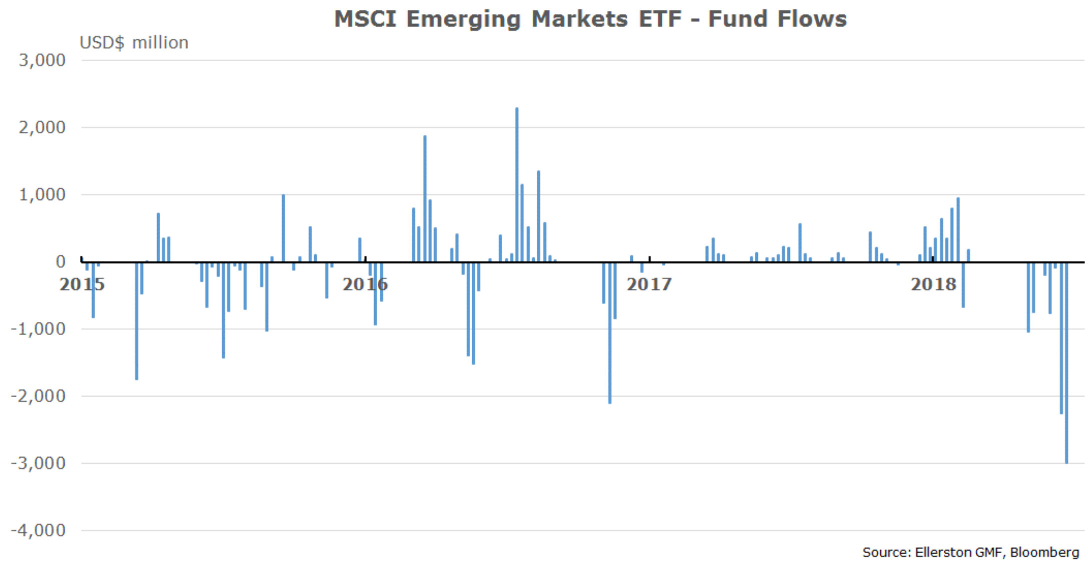
[2] http://www.peritusasset.com/2017/06/the-high-yield-market-market-size-ownership-funds-and-opportunities-3/





And flows tend to follow performance. So negative performance will drive more outflows, more negative performance and so on.

Is that where we are now? Perhaps. As I said, bubbles bursting are very hard to predict. But we have a catalyst – Fed hikes. The turn looks to be in, and the flows are starting. We think there is a very real risk a bursting is unfolding, and as such we are positioned for a bust in this sector (see below).

What would make us more certain? That is where 1968 comes in. Huh?

You see, what could temper the unwind of the yield trade would be a tempering of the Fed. Will the Fed temper? Many think so. From the doves on the Fed concerned about lower neutral rates and curve inversion, to the market itself pricing only half what the Fed is promising.

So is the market right? For the market to be right, one has to believe the Fed only has 2 to 3 more hikes to go. I have written about our outlook for the US economy and the Fed ad nauseam, but suffice to say that all the evidence we see in US growth, inflation and wages has us more convinced we are on the cusp of a material acceleration in all three.

Which brings me to 1968. That was the last time the Fed set zero real rates in the belief inflation would not emerge. Indeed, Powell recently touched on this at his Sintra speech, in an effort to dissuade commentators that this was a worthy analogue. From one of my consultants, Phil Suttle;

__He emphasized two differences between now and then, which both strike me as not quite right__. First, he noted that estimates of NAIRU for now are lower than for the late-60s. The problem with this observation is that __real-time estimates of NAIRU back then were actually much lower than they are now, in retrospect__ (the Fed itself has done great research in this area). Second, he emphasized how well inflation expectations are anchored today compared to the late 1960s. Again, we thought they were well anchored (and exploitable) back then (including in the bond market) until they were not. What got them going was an acceleration in headline inflation after a long period of stability.

(He is older than me, but I didn't think he was quiet old enough to say "we thought"…)

The bottom line is that the late 1960's is the last time the Fed had policy this easy with the labour market so strong. And it's fair to say the result was disastrous. Which is why 1994 does not serve as a perfect analogue. In 1994, Greenspan was determined not to repeat the mistake of 68. Hence he hiked interest rates aggressively, before and so inflation would not have a chance to emerge.

This won't happen under a Powell Fed, with a symmetric inflation objective. At least not until it is too late.

And 1998? In a hiking cycle, *things* break. I refer to 1998 (and 1997) not because the EM imbalances were the same as now. They weren't. But because an offshore crisis averted Fed rate hikes, and indeed prompted the Fed to reverse direction and cut 75 basis points. So could a crisis in EM now pause the Fed? Possibly.

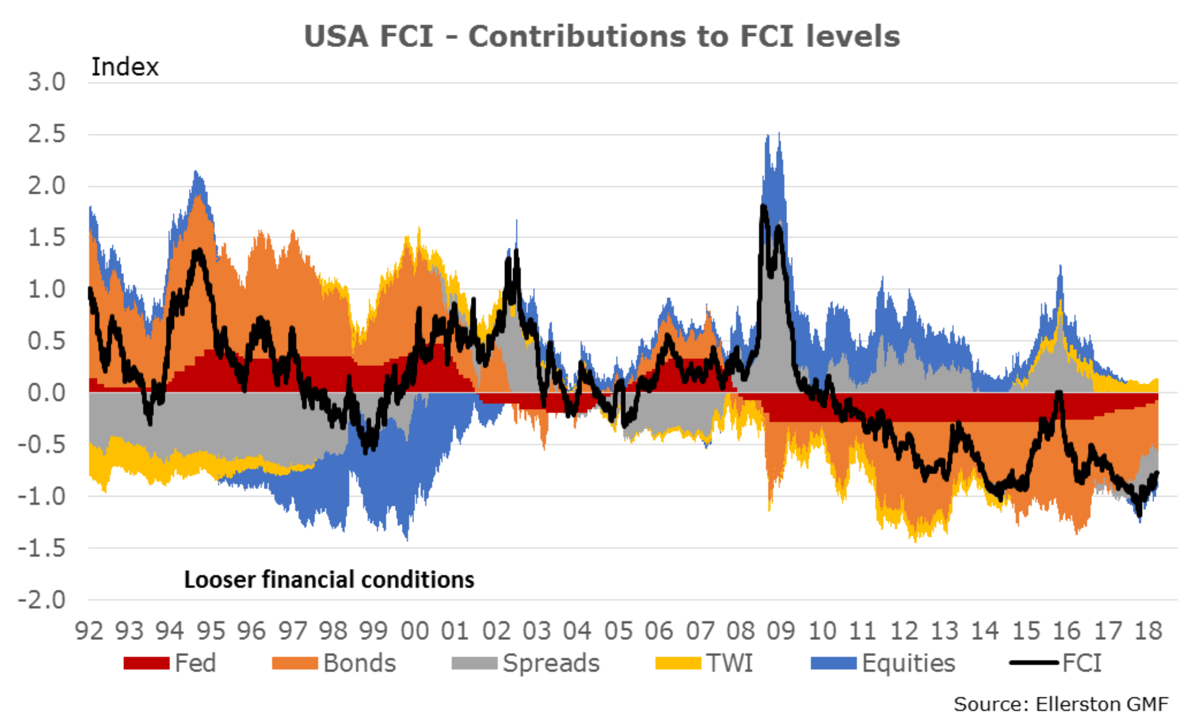
So after so many possibilities, let me draw together the possibilities for you.

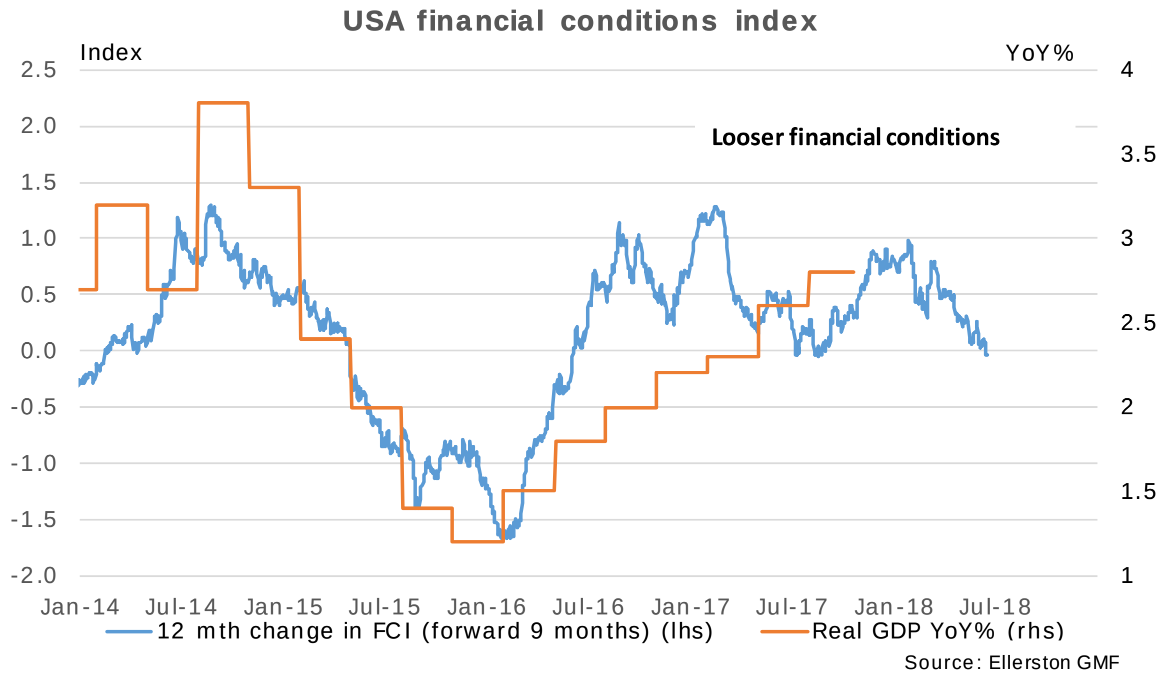
First and most simply, ***the Fed needs the US economy to slow down.***

How strong is that need? If wages and inflation don't accelerate, in the Fed's current view, that need is fairly strong. But similar to 04-06, it still takes a lot to placate the determination of the Fed to return policy to a somewhat restrictive level – in their mind about 3.5%.

What if 68 is the right analogue? Put politely, the Fed would be in rather a pickle. They will have to hike rates aggressively and engineer a recession. Hence Powell's optimistic counter.

But here's the rub. Rate hikes from the Fed is not the only way to slow the US economy. A tightening in "financial conditions" will slow the economy. And this can occur via higher interest rates. Or higher rates for corporates. Or a higher USD. Or a fall in equity markets. Or some combination. This is what our financial conditions index captures.



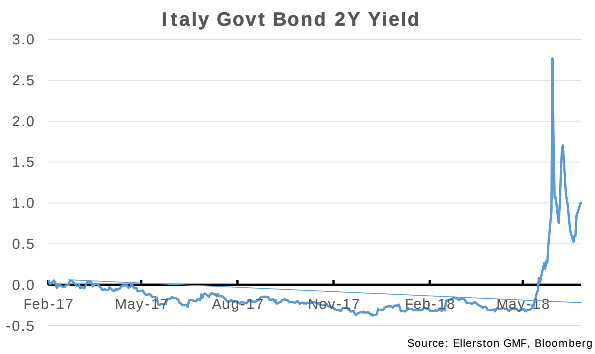


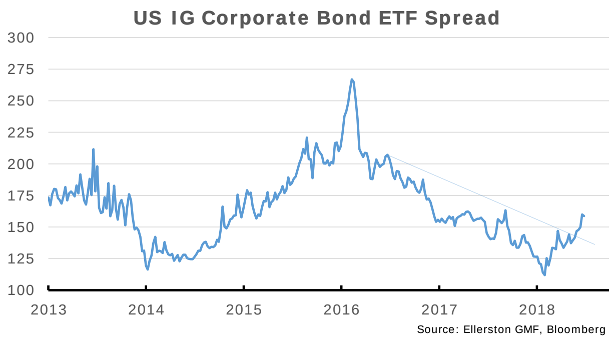
We need to see the change in this index move to -1.5 or below to slow the US economy enough to meet the Fed's forecasts[3], similar tightening to 2015. But note the tightening in 2015 came about from the currency, corporate spreads and equities, not the Fed. Will that be the case this time?

We can't be sure. But what we can be sure about is a tightening in the FCI needs to happen. In 94 it was done by the Fed. In 98 it was done by the equity market. In 68 it wasn't done, and the US suffered 2 decades of high inflation.

The complication this time is the size of the yield bubble. It is a 10 year bubble, supported by ETF's promising liquidity, with a Fed slowly removing support, like a Humpty Dumpy Wall game!

And walls are starting to fall. So far this year we have had a VIX blow-up, Italian bonds, Brazil bonds. Are EM bonds just starting?





[3] A late 60's analogue would require a far more dramatic tightening in the FCI

So if the wall, or EM market, falls down, the US FCI will tighten significantly via falling equities, rising corporate spreads and a strong USD. But not via Fed rate hikes. Indeed, like 98, the Fed might actually ease.

So how do we position for this?

We position for a tightening in the FCI. Sounds easy enough. Like herding cats…

Well in fact, if you want to herd cats, it's best to do it one at a time. So we look at each component of the FCI.

a) Fed hikes. The only direct tool available to the Fed if the FCI is not tightening. We are positioned for Fed hikes through 2019.
b) Long bonds. Not directly controlled by the Fed, but influenced by the Fed and Fed expectations. A steepening of the yield curve, say due to higher inflation, would tighten the FCI. We have options for the curve to steepen.
c) Corporate credit. Highly correlated to equities, but a liquidity break could see an outsized move. We are short IG credit in the US via options.
d) Equities. Equities can fall for a number of reasons. The Fed, an EM crisis, an IG crisis, tariffs. We have the first 3 covered directly. From time to time we run downside on the US equity markets via options as well.

We think EM, both equities and bonds, is the next candidate for a "liquidity" break. So we own puts and put spreads on the ETFs that hold emerging market equities and bonds.

So that is it in a nutshell. Financial conditions in the US need to tighten. Quite possible an awful lot if wage and inflation lifts, which looks likely. But after a 10 year yield chase, it is quite likely *something* breaks and does the Fed's job for it. And that will not be at all pleasant. Well at least not for the average investor. For us, we are looking forward to that once in a decade (or lifetime?) opportunity.

Do not be complacent.

Brett Gillespie

Ellerston Global Macro Fund Overview:

The Fund aims to operate a discretionary, medium-term global macro strategy with an unconstrained, absolute approach. It focuses on capital preservation and aims to have low to negative correlation to traditional asset classes. The Fund aims to generate superior returns over a range of market conditions. The Fund aims to achieve its objective by implementing a strategy which focuses on a number of fundamentally derived core themes optimised via trade execution and portfolio construction. The Fund invests in a portfolio of fixed interest, foreign exchange, equity and commodities.

Ellerston Global Macro Team:

Brett Gillespie – Head of Global Macro
Brett has worked in the financial services industry for over 29 years with over 26 of these as a fundamental medium term macro trader. Brett joined Ellerston Capital in November 2016 as Head of Global Macro. Before joining Ellerston, Brett spent over 10 years as Senior Portfolio Manager at Tudor Investment Corporation in both London and Sydney. Prior to this Brett spent two years contracted to manage capital for Commonwealth Bank of Australia on an absolute return basis. Brett began his career in 1989 at Bankers Trust as a Futures Broker then Proprietary Trader. Brett transitioned to BT Funds Management Ltd to the position of Executive Vice President, Head of Cash and Cash Enhanced Products and in 1999 commenced management of Intermediate Bond Funds. Brett's last held position here was Head of Global Sovereign Bonds.

Brett has a Bachelor of Economics degree from the University of Sydney and has been a guest panel speaker at the OECD Business and Finance Outlook Conference and a guest lecturer at the London Business School.

Tim Toohey – Chief Economist
Tim joined Ellerston capital in March 2017 as Chief Economist within the Global Macro Team, bringing 25 years industry experience as an economist. Tim joined from Goldman Sachs where he was Chief Economist and Head of Macro Strategy Australia and New Zealand. In 2002, Tim joined JBWere (who later merged with Goldman Sachs in 2003) as a Senior Economist in the research department and was named Managing Director in 2009. Prior to this, Tim was Macroeconomist with the ANZ Banking Group for two years. Tim began his career as a Senior Economist with the National Institute of Economic and Industry Research.

Tim has been voted in the Greenwich survey as the number one Economist in Australia from 2003-2016.

Tim has a Bachelor of Commerce degree from the University of Melbourne (Honours in Economics) and a Masters of Economics also from The University of Melbourne.

Robert Chiu – Portfolio Manager
Robert has worked in the financial services industry for 12 years, joining Ellerston as a Portfolio Manager in April 2017. Robert joined Ellerston after three years at Brevan Howard as a Trader based in Hong Kong. Prior to this, Robert was an Associate at Morgan Stanley in their Global Capital Markets division in Sydney. Robert began his career in Analyst roles at Corpac Partners PwC, Citi Group and BHP Billiton.

Robert has a Bachelor of Laws degree with honours from the University of Sydney and a Bachelor Commerce with majors in Accounting and Econometrics.

Howard Chang – Analyst
Howard joined Ellerston as an Investment Analyst in February 2017. Howard joined from Russell Investments, where he worked as an Actuarial Analyst, valuing and modelling superannuation funds for 3 years. Prior to this, Howard was an Analyst in the Group Finance Division at Westpac. Howard began his career in an Analyst role at Russell Investments.

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